

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/004864

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02G3/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H02G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 772 759 A (ROY ET AL.) 20 September 1988 (1988-09-20) column 3, line 44 - column 3, line 49; figure 1	1-4
X	JP 09 093757 A (YAZAKI CORP) 4 April 1997 (1997-04-04) abstract	1-4
X	US 5 488 345 A (SEKI ET AL.) 30 January 1996 (1996-01-30)	5,6,9,10
Y	column 6, line 8 - column 6, line 62; figures 6-8	7,8,11, 12
Y	JP 2002 124175 A (YAZAKI CORP) 26 April 2002 (2002-04-26) cited in the application abstract	7,8,11, 12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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* & * document member of the same patent family

Date of the actual completion of the international search

1 September 2004

Date of mailing of the international search report

16 SEP 2004

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/004864

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4772759	A	20-09-1988	CA 1310393 C DE 3830133 A1 GB 2210205 A ,B JP 1089270 A	17-11-1992 06-04-1989 01-06-1989 03-04-1989
JP 09093757	A	04-04-1997	NONE	
US 5488345	A	30-01-1996	JP 2879811 B2 JP 7169382 A DE 4423220 A1 GB 2279826 A ,B GB 2307603 A ,B GB 2307604 A ,B US 5629663 A US 5680088 A	05-04-1999 04-07-1995 19-01-1995 11-01-1995 28-05-1997 28-05-1997 13-05-1997 21-10-1997
JP 2002124175	A	26-04-2002	NONE	